

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Confirmation No. 7809

Reissue of	:	U.S. Patent No. 5,791,422
Patent Issue Date	:	August 11, 1998
Patentee	:	Dah Ben Liang, et al.
Application No.	:	09/637,764
Filed	:	August 10, 2000
Title	:	ROCK BIT WITH HARDFACING MATERIAL INCORPORATING SPHERICAL CAST CARBIDE PARTICLES
Grp./Div.	:	3672
Examiner	:	NEUDER, Willam P.
Docket No.	:	36912/S61
Customer No.	:	23363

**SUBSTITUTE DECLARATION FOR REISSUE PATENT APPLICATION**

**Mail Stop REISSUE**

Commissioner for Patents  
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Alexandria, VA 22313-1450

Post Office Box 7068  
Pasadena, CA 91109-7068

Commissioner:

As a below named inventor, I hereby declare that my residence and post office address is listed below, I am a citizen of the United States of America, and I believe I am an original, first and joint inventor of the subject matter described and claimed in U.S. Patent No. 5,791,422 ("the '422 Patent"), issued on August 11, 1998, for which a reissue patent is sought on the invention entitled ROCK BIT WITH HARDFACING MATERIAL INCORPORATING SPHERICAL CAST CARBIDE PARTICLES. The application for the '422 Patent was filed on March 12, 1997, as Application Serial No. 08/815,745 ("the '745 Application").

I acknowledge the duty to disclose information known to me to be material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a).

I believe that the '422 Patent is partially inoperative because none of the claims in the '422 Patent are directed to a rock bit comprising a cutting cone having a number of teeth which include a hardfacing comprising spherical cast tungsten carbide particles having particle sizes

between about 16 mesh to less than 40 mesh without also requiring particle sizes between about 80 and 200 mesh. The novelty of this aspect of my invention was erroneously overlooked, as I did not appreciate the full scope of the invention being claimed at the time the '745 Application was filed and during its prosecution. My failure to recognize the full scope of the invention being claimed was inadvertent as is evidenced by the fact that although this novel feature was described in the specification of the '745 Application, it was not broadly claimed. As a result of this failure, I claimed less than I had a right to claim in the '422 Patent. Every error in the patent which was corrected in the present reissue application, and is not covered by a prior oath/declaration submitted in this application, arose without an deceptive intention on the part of the applicant.

I hereby state that I have reviewed and understand the content of the above-identified application, including the original claims 1-3, 7-27 and any amendment made to such claims, and the added reissue claims 28, 31-33, 35-37, 39-41 and 43-67, and any amendment made to such added claims.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the reissue application or any patent issuing thereon.

Date Jan 7, 2011

By Dah-Ben Liang

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